INTERNATIONALSEARCHREPORT

International application No. PCT/JP2005/001541

| A. CLASSIFICATIONOF SUBJECT MATTER | | | |
|--|---|--|---|
| Int.Cl ⁷ H01L 27/12, H01L 29/786, H01L 21/336, G06K 19/00 | | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | | |
| B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) | | | |
| IntCl' HOIL 27/12, HOIL 29/786, HOIL 21/336, G06K 19/00 | | | |
| · | | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Japanese Utility Model Gazette 1922-1996. Japanese Publication of Unexamined Utility Model Japanese Utility Model Gazette 1924-2005, Japanese Gazette | | | |
| annilestions 1971-2005. dapanese registered outsty both | | | |
| Containing the Utility Model 1996-2005 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) | | | |
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| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
| | Citation of document, with indication, where appr | ropriate, of the relevant passages | Relevant to claim No. |
| Category* | Chands of documents | | |
| Y | US 2001/0015256 A1 | , | 1-60 |
| | (Semiconductor Energy Laboratory) | | |
| | 2001.08.23, whole document, Figs.1-9C | | |
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| Y | WO 2003/010825 A1(SEIKO EPS 2003.02.06, whole document, | 1-00 | |
| | (Family:none) | | |
| | | | 23-25 |
| Y | Y EP 1193759 A(HITACHI MAXELL, LTD.) 23-25 2002.04.03, whole document, Figs.1-22 | | |
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| Further documents are listed in the continuation of Box C. See patent family annex. | | | |
| * Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention | | | |
| considered to be of particular relevance "E" earlier application or patent but published on or after the inter- pational filing date "X" document of particular relevance; the claimed invention cannot be considered to involve an optional filing date | | | |
| national filing date national filing date be considered novel or cannot be considered novel or | | | is taken alone |
| is cited to establish the publication date of another citation or other special reason (as specified) | | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is | |
| "O" document referring to an oral disclosure, use, exhibition or other combined with on combination being or | | | er such documents, such son skilled in the art |
| "P" document published prior to the international filing date but later "&" document member of the same patent family | | | |
| Date of the actual completion of the international search | | Date of mailing of the international search report | |
| 03.03.2005 | | 22. 3. | 2005 |
| Name and mailing address of the ISA/JP | | Authorized officer | 4M 3123 |
| Japan Patent Office | | Sonoko Miyazaki | |
| 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan | | Telephone No. +81-3-3581-1101 Ext. 3462 | |